

Application Serial No. 09/836,470
Preliminary Amendment

AMENDMENTS TO THE CLAIMS

1. – 19. (Canceled)

20. (New) An isolated DNA fragment, which codes for a polypeptide comprising at least amino acids 50 to 393 of SEQ ID NO:2.

21. (New) The DNA fragment of Claim 20, which comprises nucleotides 430 to 1461 of the nucleotide sequence of SEQ ID NO:1.

22. (New) A microorganism transformed with the DNA fragment of Claim 20.

23. (New) The microorganism of Claim 22, wherein the DNA fragment is introduced so that the microorganism has enhanced intracellular carbamoyl-phosphate synthetase activity.

24. (New) The microorganism according to Claim 22, which is a coryneform bacterium.

25. (New) An isolated DNA fragment comprising a nucleotide sequence which hybridizes under stringent conditions to nucleotides 283 to 1461 of SEQ ID NO:1, wherein said stringent conditions comprise washing at 60°C in 1X SSC and 0.1%SDS, and wherein said isolated DNA fragment codes for a polypeptide which has carbamoyl-phosphate synthetase activity with a large subunit of carbamoyl-phosphate synthetase.

26. (New) A microorganism transformed with the DNA fragment of Claim 25.

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27. (New) The microorganism of Claim 26, wherein the DNA fragment is introduced so that the microorganism has enhanced intracellular carbamoyl-phosphate synthetase activity.

28. (New) The microorganism according to Claim 26, which is a coryneform bacterium.

29. (New) An isolated DNA fragment, which codes for a polypeptide comprising amino acids 1 to 1113 of SEQ ID NO:3.

30. (New) The isolated DNA fragment of Claim 29, comprising nucleotides 1470 to 4808 of SEQ ID NO:1.

31. (New) A microorganism transformed with the DNA fragment of Claim 29.

32. (New) The microorganism of Claim 31, wherein the DNA fragment is introduced so that the microorganism has enhanced intracellular carbamoyl-phosphate synthetase activity.

33. (New) The microorganism according to Claim 31, which is a coryneform bacterium.

34. (New) An isolated DNA fragment, encoding a polypeptide which has carbamoyl-phosphate synthetase activity, or a polypeptide which can constitute a protein having carbamoyl-phosphate synthetase activity with a small subunit of carbamoyl-phosphate synthetase comprising at least amino acids 50 to 393 of SEQ ID NO:2,

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wherein the polypeptide has the amino acid sequence encoded by the second open reading frame of *Brevibacterium lactofermentum* DNA contained in the plasmid p19 in *Escherichia coli* AJ13574 (FERM BP-6989).

35. (New) A microorganism transformed with the DNA fragment of Claim 34.

36. (New) The microorganism of Claim 35, wherein the DNA fragment is introduced so that the microorganism has enhanced intracellular carbamoyl-phosphate synthetase activity.

37. (New) The microorganism according to Claim 35, which is a coryneform bacterium.

38. (New) An isolated DNA fragment comprising a nucleotide sequence which hybridizes under stringent conditions to nucleotides 1470 to 4808 of SEQ ID NO:1, wherein said stringent conditions comprise washing at 60°C in 1X SSC and 0.1% SDS, and wherein said isolated DNA fragment encodes a polypeptide having a carbamoyl-phosphate synthetase activity.

39. (New) A microorganism transformed with the DNA fragment of Claim 38.

40. (New) The microorganism of Claim 39, wherein the DNA fragment is introduced so that the microorganism has enhanced intracellular carbamoyl-phosphate synthetase activity.

41. (New) The microorganism according to Claim 39, which is a coryneform bacterium.

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42. (New) An isolated DNA fragment comprising a nucleotide sequence which hybridizes under stringent conditions to nucleotides 283 to 1461 and 1470 to 4808 of SEQ ID NO:1, wherein said stringent conditions comprise washing at 60°C in 1 X SSC and 0.1% SDS, wherein said isolated DNA fragment encodes polypeptides or a protein having carbamoyl-phosphate synthetase activity.

43. (New) A microorganism transformed with the DNA fragment of Claim 42.

44. (New) The microorganism of Claim 43, wherein the DNA fragment is introduced so that the microorganism has enhanced intracellular carbamoyl-phosphate synthetase activity.

45. (New) The microorganism according to Claim 43, which is a coryneform bacterium.

46. (New) An isolated DNA fragment comprising a nucleotide sequence which hybridizes under stringent conditions to nucleotides 1470 to 4808 of SEQ ID NO:1, wherein said stringent conditions comprise washing at 60°C in 1 X SSC and 0.1% SDS, and wherein said isolated DNA fragment encodes an enhanced carbamoyl-phosphate synthetase activity with a small subunit of carbamoyl-phosphate synthetase.

47. (New) A microorganism transformed with the DNA fragment of Claim 46.

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48. (New) The microorganism of claim 47, wherein the DNA fragment is introduced so that the microorganism has enhanced intracellular carbamoyl-phosphate synthetase activity.

49. (New) The microorganism of claim 47, which is a coryneform bacterium.